

O I P E
APR 14 2003
U.S. PATENT & TRADEMARK OFFICE
Please type a plus sign (+) inside this box →

(Modified) PTO/SB/21 (6-98)
Approved for use through 09/30/2000. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

2818
+

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsey
		Group Art Unit	2818
		Examiner Name	Unassigned
Total Number of Pages in This Submission		Attorney Docket Number	407T-301500US

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	<input type="checkbox"/> PTO Form 1449; Cited References; receipt acknowledgment postcard
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Small Entity Statement	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

Authorization to Charge Deposit Account
Please charge Deposit Account No. 50-0893 for any additional fees associated with this paper or during the pendency of this application, including any extensions of time for consideration of the documents enclosed.

RECEIVED
APR 16 2003
MAIL ROOM

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Tom Hunter, Reg. No. 38,498, Quine Intellectual Property Law Group, P.C.
Signature	
Date	4/9/03

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: April 9, 2003

Typed or printed name	Amelia Groth	
Signature		Date
	April 9, 2003	



I hereby certify that this correspondence is being deposited with the United States Postal Service first class mail in an envelope addressed to:
Assistant Commissioner for Patents,
Washington, D.C. 20231, on April 9, 2003

QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

By A. Groth
Amelia Groth

*H.S.
D. Scott
S-8-03*

Attorney Docket No. 407T-301500US
Client Ref. No. 2002-031

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jonathan S. Lindsey, et al.

Examiner: Unassigned

Application No.: 10/079,938

Art Unit: 2818

Filed: February 19, 2002

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR § 1.97 and
§ 1.98

For: MULTISTATE TRIPLE-DECKER
DYADS IN THREE DISTINCT
ARCHITECTURES FOR
INFORMATION STORAGE
APPLICATIONS

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

RECEIVED
APR 16 2003
TC 2800 MAIL ROOM

Jonathan S. Lindsey, et al.
Application No.: 10/079,938
Page 2

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

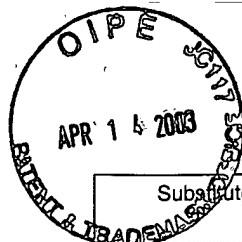
Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action on the merits per 37 CFR 1.97(b)(3). However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,


Tom Hunter, J.D., Ph.D.
Reg. No. 38,498

QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.
P.O. BOX 458
Alameda, CA 94501
(510) 337-7871
Fax (510) 337-7877

TH:ag

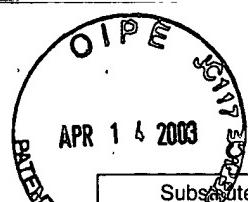


Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsey
		Group Art Unit	2818
		Examiner Name	Unassigned
		Attorney Docket Number	407T-301500US
		Date Submitted	April 9, 2003

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
	1	3,637,581		Horiguchi et al.	1/25/1972
	2	3,833,894		Aviram et al.	9/3/1974
	3	4,618,509		Bulkowski	10/21/1986
	4	4,663,270		Potember et al.	5/5/1987
	5	4,670,860		Wilson	6/2/1987
	6	4,728,724		Jones et al.	3/1/1988
	7	4,781,443		Giles	11/1/1988
	8	5,010,451		Ueyama et al.	4/23/1991
	9	5,016,063		Beratan et al.	5/14/1991
	10	5,035,835		Asakawa et al.	07/30/1991
	11	5,063,417		Hopfield	11/5/1991
	12	5,075,738		Matsuda et al.	12/24/1991
	13	5,091,502		Narang et al.	2/25/1992
	14	5,135,537		Eida et al.	8/4/1992
	15	5,222,060		Kuroda et al.	6/22/1993
	16	5,252,698		Bhardwaj et al.	10/12/1993
	17	5,264,876		Kawade et al.	11/23/1993
	18	5,280,183		Batzel et al.	1/18/1994
	19	5,312,896		Bhardwaj et al.	5/17/1994
	20	5,432,379		Eguchi et al.	7/11/1995
	21	5,434,842		Weiss et al.	7/18/1995
	22	5,463,014		Epstein et al.	10/31/1995
	23	5,475,075		Brant et al.	12/12/1995
	24	5,506,420		Kossovsky et al.	4/9/1996
	25	5,525,811		Sakurai et al.	6/11/1996
	26	5,539,100		Wasielewski et al.	7/23/1996

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



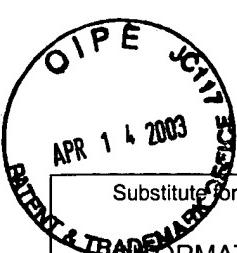
Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsey
		Group Art Unit	2818
		Examiner Name	Unassigned
		Attorney Docket Number	407T-301500US
		Date Submitted	April 9, 2003

	27	5,547,774		Gimzewski et al.	8/20/1996	
	28	5,707,845		Ueyama et al.	1/13/1998	
	29	5,744,598		Skalkos et al.	4/28/1998	
	30	5,804,850		Evans, Jr. et al.	9/8/1998	
	31	5,814,420		Chu	9/29/1998	
	32	5,840,443		Gregg et al.	11/24/1998	
	33	5,844,055		Brandt et al.	12/1/1998	
	34	5,858,666		Weiss	1/12/1999	
	35	6,013,170		Meade	1/11/2000	
	36	6,031,756		Gimzewski et al.	2/29/2000	
	37	6,128,214		Kuekes et al.	10/3/2000	
	38	6,208,553		Gryko et al.	3/27/2001	
	39	6,212,093		Lindsey	4/3/2001	
	40	6,272,038		Clausen et al.	8/7/2001	
	41	6,324,091		Gryko et al.	11/27/2001	
	42	6,381,169		Bocian et al.	4/30/2002	
	43	6,451,942		Li et al.	9/17/2002	

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
44	EP	0 272935	A3		Canon	6/29/1988		
45	EP	0 307210	A2		Seiko	3/15/1989		
46	EP	0 307211	A2		Seiko	3/15/1989		
47	EP	0 363147	A2		Canon	4/11/1990		
48	WO	99/24527	A1		OMD Devices	5/20/1999		
49	WO	01/03126	A2		Univ. of California	1/11/2001		o

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

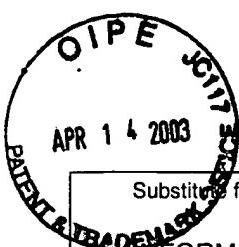


Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsey
		Group Art Unit	2818
		Examiner Name	Unassigned
		Attorney Docket Number	407T-301500US
		Date Submitted	April 9, 2003

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T
	50	"Ferrocene--Molecule of the Month" Jun. 1996, University of Oxford Web Page, http://www.ncl.ox.ac.uk/mom/ferrocene/ferrocene2.html.		.
	51	"Ferrocene--Synthesis", Jun. 1996, University of Oxford Web Page, http://www.ncl.ox.ac.uk/mom/ferrocene/synthesis.html.		.
	52	BALL ET AL. (2000) "Electrochemistry in Nanovials Fabricated by Combining Screen Printing and Laser Micromachining" Anal. Chem. 72: 497-501		.
	53	BANSAL ET AL. (1998) "Electrochemical Properties of (111)-Oriented n-Si Surfaces Derivatized and Covalently-Attached Alkyl Chains" J. Phys. Chem. 102:7:1067-1070		.
	54	BATEMAN ET AL. (1998) Alkylation of Porous Silicon by Direct Reaction with Alkenes and Alkynes" Angew. Chem. Int. Ed. 37:19:2683-2685		.
	55	BOUKHERROUB ET AL. (1999) "Controlled Functionalization and Multistep Chemical Manipulation of Covalently Modified Si(111) Surfaces" J. Am. Chem. Soc. 121: 11513-11515		.
	56	BRATTEN ET AL. (1997) Micromachining Sensors for Electrochemical Measurement in Subnanoliter Volumes" Anal. Chem. 69: 253-259		.
	57	BUCHLER AND NG (2000) In <i>The Porphyrin Handbook</i> , Vol. 3, Pages 245-294, Eds. K. M. Kadish, K. M. Smith, R. Guilard, Academic Press, San Diego, CA		
	58	BURIAK ET AL. (1998) "Lewis Acid Mediated Functionalization of Porous Silicon with Substituted Alkenes and Alkynes" J. Am. Chem. Soc. 120: 1339-1340		
	59	CHABACH ET AL. (1996) "Mixed-Metal Triple-Decker Sandwich Complexes with the Porphyrin/Phthalocyanine/Porphyrin Ligand System" Angew. Chem. Int. Ed. Engl., 35: 898		
	60	CLAUSEN ET AL. (2000) Investigation of Tightly Coupled Porphyrin Arrays Comprised of Identical Monomers for Multibit Information Storage" J. Org. Chem. 65: 7371-7378		
	61	CLELAND ET AL. (1995) "Direct Functionalization of Silicon via the Self-Assembly of Alcohols" J. Chem. Soc. Faraday Trans. 91(21) 4001-4003		
	62	CLARK ET AL. (1997) "Electrochemical Analysis in Picoliter Microvials" Anal. Chem. 69: 259-263		
	63	CLARK ET AL. (1998) "Characterization of Electrochemical Responses in Picoliter Volumes" Anal. Chem. 70: 1119-1125		
	64	COLLIER ET AL. (1999) "Electronically Configurable Molecular-Based Logic Gates" Science 265: 391-394		
	65	COTTON ET AL (1976) Basic Inorganic Chemistry, pp. 125, 497, 518		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

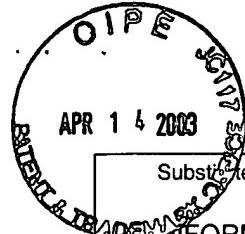


Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsay
		Group Art Unit	2818
		Examiner Name	Unassigned
		Attorney Docket Number	407T-301500US
		Date Submitted	April 19, 2003

	66	COULTER ET AL. (2000) "Reactions of Substituted Aromatic Hydrocarbons with the Si(001)Surface" J. Vac. Sci. Technol. A 18(4) 1965-1970	
	67	DUCHOWSKI ET AL. (1990) Spectroscopic Characterization of Triple Decker Lanthanide Porphyrin Sandwich Complexes. Effects of Strong π π Interactions in Extended Assemblies" J Am. Chem. Soc. 112: 8807-8811	
	68	GAVIN ET AL. (1996) "Continuous Separations with Microfabricated Electrophoresis-Electrochemical Array Detection" J. Am. Chem. Soc. 118: 8932-8936	
	69	GORMAN (1997) "Encapsulated Electroactive Molecules" Adv. Mater. 9(14) 1117-1119	
	70	GORMAN (1999) "Molecular Structure-Property Relationships for Electron-Transfer Rate Attenuation in Redox-Active Core Dendrimers" J. Am. Chem. Soc. 121: 9958-9966	
	71	GROSS (2001) "Investigation of Rational Synthesis of Heteroleptic Porphyrinic Lanthanide (Europium, Cerium) Triple-Decker Sandwich Complexes" Inorg. Chem. 40: 4762-4774	
	72	GRYKO (2000) "Synthesis of Porphyrin-Linker-Thiol Molecules with Diverse Linkers for Studies of Molecular-Based Information Storage" J. Org. Chem. 65: 7345-7355	
	73	GRYKO (2000) "Synthesis of Thiol-Derivatized Ferrocene-Porphyrins for Studies of Multibit Information Storage" J. Org. Chem. 65: 7356-7362	
	74	GRYKO (2001) "Studies Related to the Design and Synthesis of a Molecular Octal Counter" J. Mater. Chem. 11: 1162-1180	
	75	HYDE (1985) "Ellipsometric Measurements of the Pt-Aqueous Electrolyte Interface, in the Absence and in the Presence of Specific Anionic Adsorption" J. Electroanal. Chem. 186: 267-286	
	76	JIANG ET AL. (1998) "Heteroleptic Triple-Decker (Phthalocyaninato)-Porphyrinato) Europium (III) Complexes: Synthesis and Electrochemical Study" Inorganica Chimica Acta 268: 49-53	
	77	KOVACH ET AL. (1985) "Faradaic Electrochemistry at Microcylinder, Band, and Tubular Band Electrodes" 185: 285-295	
	78	LI ET AL. (2000) "Synthesis of Thiol-Derivatized Europium Porphyrinic Triple-Decker Sandwich Complexes for Multibit Molecular Information Storage" J. Org. Chem. 65: 7379-7390	
	79	NAGALE ET AL. (1998) "Individually Addressable, Submicrometer Band Electrode Arrays. 1. Fabrication from Multilayered Materials" Anal. Chem. 70: 2902-2907	
	80	ROTH (2000) "Molecular Approach Toward Information Storage Based on the Redox Properties of Porphyrins in Self-Assembled Monolayers" J. Vac. Sci. Technol. B. 18(5) 2359-2364	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute for form 1449A-B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/079,938
		Filing Date	February 19, 2002
		First Named Inventor	Jonathan S. Lindsey
		Group Art Unit	2818
		Examiner Name	Unassigned
		Attorney Docket Number	407T-301500US
		Date Submitted	April 9, 2003

	81	RUBEN ET AL. (2000) "Multilevel Molecular Electronic Species: Electrochemical Reduction of a [2X2] Co4 Grid Type Complex by 11 Electrons in 10 Reversible Steps" Angew. Chem. Int. Ed. 39(22) 4139-4142	
	82	SOMMERAUER ET AL. (1996) "Separation of 1(3), 9(10), 16(17), 23(24)-Tetrasubstituted Phthalocyanines with Newly Developed HPLC Phases" J. Am Chem. Soc. 118: 10085-10093	
	83	WONG ET AL. (1974) "Lanthanide Porphyrin Complexes, A Potential New Class of Nuclear Magnetic Resonance Dipolar Probe" J. Am. Chem. Soc. 96(22) 7149-7150	
	84	ZHU ET AL. (1999) "Chemical Vapor Deposition of Organic Monolayers on Si(100) via Si-N Linkages" Langmuir 15: 8147-8154	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.